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The Armor Force in Contingency Operations:
Do We Have the Right Tactical Doctrine?

A Monograph
by
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Armor



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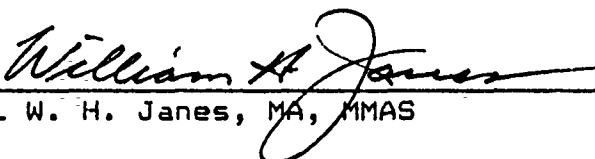
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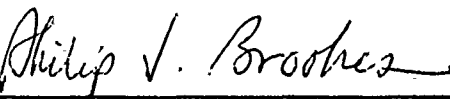
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ABSTRACT

THE ARMOR FORCE IN CONTINGENCY OPERATIONS--DO WE HAVE THE RIGHT TACTICAL DOCTRINE?

This monograph discusses the applicability of current tactical doctrine for armor forces in contingency operations. The shift in our national military strategy from a primary focus on Europe to a greater global perspective calls into question the applicability of our current tactical doctrine. This monograph examines the tactical doctrine armor forces will use in future contingency operations.

This monograph first examines the theoretical characteristics of armor and its applicability on the modern battlefield. Next three historical examples of the use of armor in a contingency operation are analyzed: the First Cavalry division on Luzon in 1945, The Blues and Royals in the Falklands, and Operation Just Cause. In all three cases, armor was used in a wide range of missions in support of combat operations.

An analysis of selected current doctrinal manuals reveals a lack of tactics and techniques and procedures to support light and heavy force mixes in a contingency operation. Reports from the combat Training Centers highlight the need for tactical doctrine to support light and heavy force mix operations. Methods for employing armor highlighted in the historical examples are not supported by current tactical doctrine.

This study concludes that current tactical doctrine provides the "what to do" but not the "how to" for mixed forces in a contingency operation. Additional tactics, techniques, and procedures are necessary if armor is to perform properly in a contingency operation environment. Specifically, this means integration of light and heavy forces in a wide array of operations. Tactical doctrine must be integrated among the infantry and armor communities to ensure the commander has the most capable force available.

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I. INTRODUCTION

The termination of the Kremlin's hold on Eastern Europe and the emergence of democratic reforms in the Soviet Union have changed the global political and military landscape in ways unparalleled since World War II. One result of this change for the United States is the shifting emphasis from a security strategy focused on Europe to a strategy with greater emphasis on a global perspective.

Future conflicts will probably entail, at least initially, contingency operations in one of several potential theaters of operation. "In the 1990s and beyond, the United States will have to rely even more on rapid deployment of Army forces from the United States to guarantee it's security."¹

A central element in considering contingency operations is the phenomenon of global arming. In the 1980s we saw global proliferation of high technology arms and armored forces. Large forces in many third world countries comprising thousands of armored vehicles and armies with hundreds of thousands of men are more common today than ten years ago.² The Korean Peninsula remains a possible powder keg and insurgencies and civil strife from Africa through the Pacific are other possible areas of involvement for the United States. Not to be forgotten, the Soviet Union

continues to undergo remarkable changes but remains a potential adversary.

The proliferation of armaments and areas of possible conflict contribute to greater regional instability and increased military threats to US interests. This wide range of threats places ever increasing demands on our armed forces. The armor force, like the Army, must also be versatile to respond to crises, conflicts, and contingencies worldwide. Its soldiers, units, and leaders must be prepared for missions that span the spectrum of conflict, from "brushfire conflicts" that require relatively small, light armored forces to high-intensity combat in which massive mechanized armies collide.³

A valid question arises concerning our ability to meet the increasing requirement for a force capable of addressing a diverse threat across the operational continuum. The impact of a "Europe first" strategy on the US Army has yielded a narrow focus for organization, equipment, and doctrine. This shift in security strategy requires a reevaluation of selected US Army tactical doctrine.

Armored forces provide a critical element in the army's ability to meet the nation's security needs. The armored force consists of: tank, light armor, cavalry, reconnaissance, and scout units and expects to

fight as a combined arms team.⁴ It is designed, equipped, and trained for continuous mounted close combat operations under all conditions of weather and visibility. The operating environment of armor forces ranges from the force of the tank unit, the stealth of cavalry to light armor participating in contingency operations.⁵ (Appendix A contains a detailed description of contingency operations.) A basic assumption made in this paper is that a contingency operation (at a minimum the initial phases) will entail light and heavy force mix operations. Armor brings to contingency operations unique attributes which make it a valuable player on the combined arms team.

Organizations within the armor force possess six attributes which are essential to the combined arms team. They are: mobility, agility, lethality, survivability, endurance, and deployability. These attributes translate into capabilities which enable armor to perform its four battlefield roles: reconnaissance, security, mobile massed maneuver, and support of dismounted maneuver.⁶ The armor force must have the right tactical doctrine and supporting tactics and techniques to correctly perform the four battlefield roles in contingency operations. Emerging emphasis on light and heavy force mix needed to conduct contingency operations demands a review of Army armor

tactical doctrine.

The purpose of this monograph is answer the following research question: "Are current US Army tactical doctrine, tactics and techniques for the armor force acceptable for contingency operations?" I will first examine the theoretical characteristics of armor and establish the basis for the four roles of armor. I will introduce theoretical concepts from J. F. C. Fuller, Richard Simpkin, Heinz Guderian, and Clausewitz. The four battlefield roles of armor will be the criteria by which evidence will be evaluated. If the four roles are adequately addressed in current doctrinal field manuals and can be appropriately performed by armor forces in contingency operations, then the current tactical doctrine, tactics and techniques are valid. If the four roles are not adequately addressed or cannot be appropriately performed, then a revision of or addition to current doctrine is required.

I will define doctrine at the tactical level, "the what to do", and the tactics and techniques, "the how to do it," as they relate to the doctrine. I will analyze selected field manuals containing current doctrine and tactics and techniques to determine doctrine's sufficiency.

Next, I will look at three historical examples of the

use of armor which exhibit many of the characteristics of a potential contingency operation. These examples are the Philippines in World War II, the Falklands War, and Operation Just Cause in Panama.

With development of a theoretical and historical foundation, I will analyze the current armor tactics and techniques for light and heavy force mix operations starting with an examination of contingency operations. The objective of this section will be to answer the research question. I will briefly assess the current organization and proposed force. Finally, I will present conclusions based upon my analysis, and logical implications for the future of US Army armor forces.

The first step in analyzing the current tactical doctrine is to gain an appreciation for the origins of armor. Modern armor draws its heritage from the ancient mounted warrior. The evolution of weapons and warfare provide the theoretical underpinnings for the roles of armor.

II. THEORY OF THE ROLES OF ARMOR

For centuries the mounted warrior dominated the battlefield. He accomplished this through his mobility, fire power, and shock action. As the battlefield underwent dramatic changes, so did the ability of cavalry to dominate and fight on the battlefield. Technology in the form of weapons with

greater lethality drove the cavalry from its leading role on the battlefield.

Key changes in weaponry signaled the growing lethality on the battlefield, the first was the rifled musket. By the American Civil War, its improved range and accuracy made mounted charges against defending forces certain suicide. The effects of massed artillery and the arrival of the machine gun continued the process of greater lethality on the battlefield. Increasing lethality further emphasized Clausewitz's theory that the defense is intrinsically stronger than the offense.⁷ In 1915 the advantage of the defense coupled with modern weapons became apparent with devastating results.

By World War I, the evolution of modern weapons created a situation where warfare resulted in the stalemate of the trenches. The emergence of the internal combustion engine, the airplane, and the tank provided for the reemergence of the mounted warrior. The ability of armor to challenge the defense is defined in the six attributes of armor.

Theory suggests that six attributes of the armor force, (mobility, agility, lethality, survivability, endurance, and deployability) are critical to success on the modern battlefield. J. F. C. Fuller states "...these machines can move far more rapidly than

infantry in order to be in a position to seize the initiative on the outbreak of war."⁸ The famous World War II Panzer leader, Heinz Guderian, pointed to these inherent capabilities in the late 1930s when wrote, "mechanized forces fight while in motion, their attack being a combination of fire, movement, and armor protection".⁹ Guderian also stipulated that their true value rests in mobility, both strategic and tactical, which enables mechanized forces to be more speedily concentrated and employed.¹⁰

The scope of the capabilities for armored forces emphasized by Guderian is broader today. Understanding these capabilities and attributes is critical in accepting the theoretical linkage to the roles of armor. This linkage is the foundation which provides for the contemporary capability of armor forces and represented by the four roles of armor..

The first role we will examine is *Reconnaissance*, which is the focused effort to collect battlefield details about the enemy and terrain. The concept is as old as warfare itself. All types of forces conduct reconnaissance, but armored forces provide the commander unique reconnaissance capabilities.¹¹ That uniqueness stems from armor's ability to perform reconnaissance requiring mobility, firepower, and protection.

Security Operations are intended to provide the commander protection of his unit by preventing observation, harassment, surprise, or subversion. Security operations have always included some form of: screening, guarding, covering, and protecting the rear area.¹²

Mobile Massed Maneuver is most often identified with large armored formations conducting offensive operations with the tank as the primary weapon system. Richard Simpkin pointed out the unique contribution of the tank to the combined arms team,

All the roles of the tank can be performed by other surface or airborne weapon systems, but no one other weapon system can perform them all. The strength of the tank lies in the versatility conferred on it by its design balance, on its ability to be most things to most commanders - eyes to one, a warning finger to another, a mailed fist to a third and a bastion to a fourth.¹³

The synergism of tank and mechanized infantry teams with scout and cavalry units extending the commander's ability to command and control the combined arms team, results in: overwhelming combat power at the decisive time and place, shock action, and defeat of the enemy.¹⁴

Support of Dismounted Maneuver requires armor units to support dismounted infantry by using mobility and firepower to enable infantry to take its objective.¹⁵ Conditions which prescribe the environment for mixing

light and heavy forces are METT-T driven.¹⁶ Figure one provides conditions favorable to force mixing.

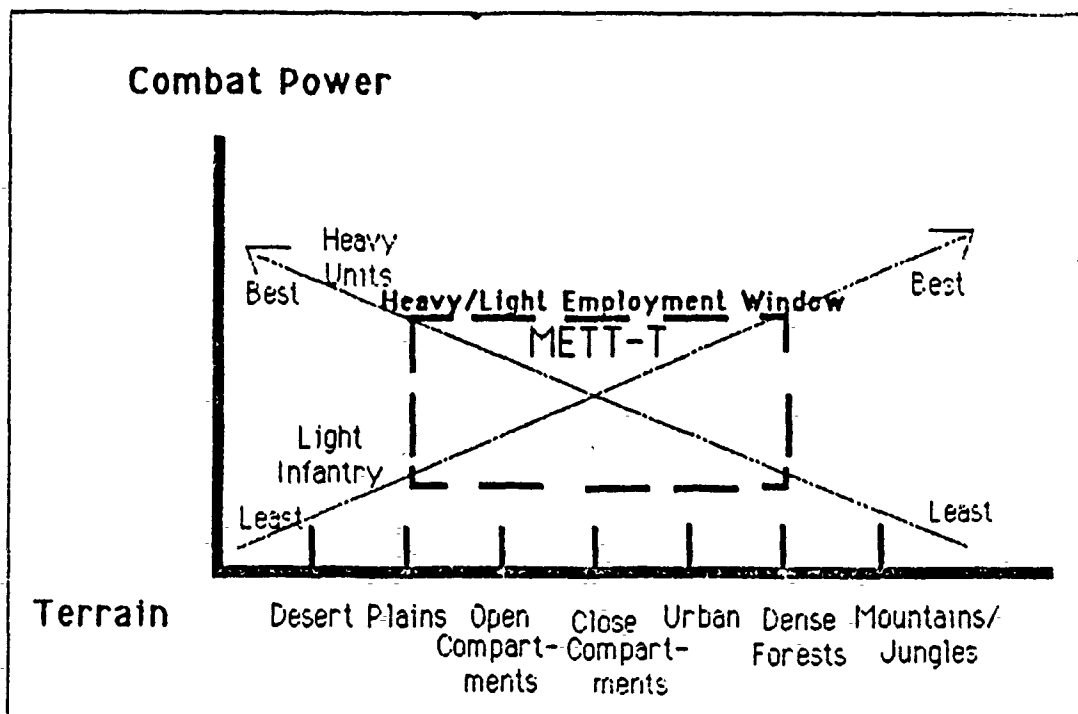


FIGURE 1 (source: FM 71-123 draft. April 1990, p. B-1)

It has been said that a platoon of armored vehicles on the first day of a crisis in a contingency operation can be of greater value in bringing about a quick and desirable end to conflict, than the value of two hundred tanks on day thirty.¹⁷

The utility of mobility, shock action, and fire power of armored forces in contingency operations is not new, J. F. C. Fuller's analysis of armor in contingency operations made over fifty years ago closely resembles today's requirement for armor.

Now as regards to the employment of mechanized and motorized forces in these

small war operations, a curious kink exists in the mind of many soldiers. Because the circumstances are primitive, they think the means of suppressing them must be equally so. I have had it more than once put to me: though tanks may be excellent weapons in Europe, they are likely to prove of little use in Asia. The problem is one of space, it is, therefore, pre-eminently a problem for machinery, and the machines which off-hand suggest themselves are the airplane, motor vehicles, and scout tank.¹⁸

The application of the four roles of armor is dependent on a mechanism which allows the transition from the conceptual to the functional realm of combat operations. Providing this mechanism is one of the functions of doctrine.¹⁹

DOCTRINE AND TACTICS AND TECHNIQUES

There are many functions performed by doctrine. Doctrine is a decisive element in the effective operation of all units and conduct of operations, to include contingency operations. Central to doctrines' effectiveness is its ability to: provide a vision of contemporary and future war, render a common language for the conduct of war, and reduce friction through common understanding of how to fight.²⁰ Doctrine is defined in FM 100-5 as:

an army's condensed expression of its approach to fighting campaigns, major operations, battles, and engagements. Tactics, techniques, procedures, organizations, support structure, equipment and training must all derive from it.²¹

Put another way, doctrine "is simply the way things are

done by most of the commanders most of the time".²²¹

Tactical doctrine plays a critical role in the way we fight and prepare to fight. It provides the "what to do" in the way we fight. This becomes particularly important when considering different types of operations. The contrast of doctrinal requirements becomes clearer when one considers a battle fought in central Europe with predominantly heavy forces as opposed to a light and heavy mixed force as part of a contingency operation in the Philippines. Our tactical doctrine for armor is found primarily in the 71 series field manuals. The implementation of doctrine is provided by tactics and techniques and procedures (TTPs).

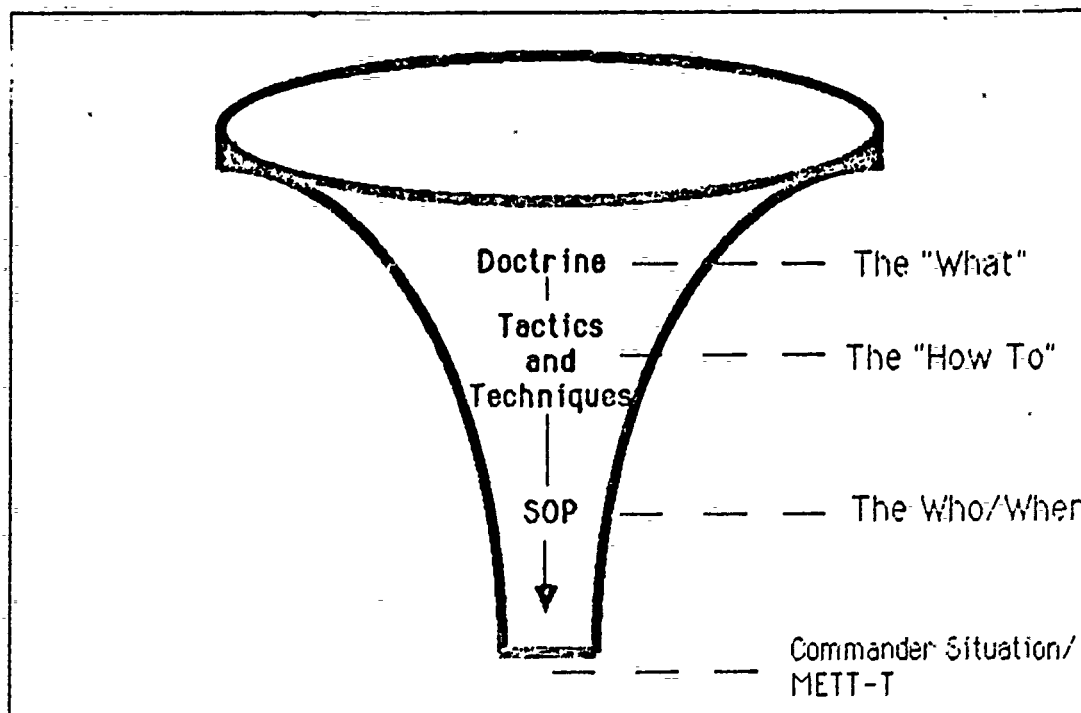


FIGURE 2. The Doctrinal Funnel²²²

Tactics and techniques provide the "how to" in implementing the "what to do" in doctrine. Tactics and techniques provide the critical elements needed to perform light-heavy force mix operations down to the lowest unit level. Tactics and techniques for armor are found in selected field manuals and documents currently in coordinating draft.²⁴

The most basic form of an established method for performing a mission or task is the standard operating procedure (SOP). SOPs provide the "who and when" in an operation (see figure 2). Doctrine, tactics and techniques, and SOPs provide for approximately eighty percent of how a unit will fight, the remainder comes from the commander, the situation, and METT-T.²⁵

Doctrine, with its subelements, provides the instructions which enable a unit to perform the four roles of armor. With out adequate doctrine, the four roles of armor become mere distant locations for a unit without a road map for application and practice. Doctrine is the linkage between theory and application.

Doctrine and the supporting tactics and techniques are essential if an army is to fight as an effective force. Doctrine provides the vehicle for the implementation of the four roles of armor. One source which we can use to help validate current doctrine is past operations. Past operations highlight the use of

armor in the four roles. By examining past operations we can test theory and doctrine with history.

III. HISTORICAL USE OF ARMOR

I will use three historical examples to illustrate the roles of armor in light and heavy force mix operations. Each operation will not necessarily entail all four roles of armor. In fact, conditions of METT-T often dictate only one or two of the four roles of armor may be necessary. The three historical examples highlight certain aspects of contingency operations, or in the case of the Philippines, illustrate conditions for a potential contemporary operation.

THE PHILIPPINES

The use of armor in the Philippines in WW II featured the four roles of armor in an austere theater and terrain considered anything but tank country. Armor performed a wide array of missions, highlighted by mobile massed maneuver in the "Flying Columns" and support of dismounted maneuver by the First Cavalry Division on Luzon. Organization and equipment were instrumental in armor's ability to operate in this environment.

The First Cavalry Division organization differed from the regular infantry division of the period. Instead of the three infantry regiments, the division

had four cavalry regiments with two cavalry squadrons. Each regiment was basically a motorized infantry unit with the exception of attached armor and reconnaissance units consisting of medium and light tanks. The division artillery consisted of one 75-mm howitzer battalion, three 105-mm howitzer battalions, and an attached 155-mm howitzer battalion. The division had an amphibious track battalion consisting of light tracked vehicles (LVTs), which saw extensive use throughout the campaign.²⁶

After the landing at San Fabian, on 27 January 1945, the Division began its drive south. The major maneuver organization consisted of two motorized squadrons that became known as "Flying Columns". Each included a cavalry squadron, a medium tank company, a 105-mm howitzer battery, other supporting elements, and sufficient vehicles to transport all troops.²⁷

A major accomplishment by the division was the high speed move from a point about midway across the island to Manila. The flying columns blasted south through enemy resistance, and were confronted by destroyed bridges, poor roads, and difficult terrain. The following passage describes one encounter of note with the Japanese:

Near the town of Talipa a few miles north east of Manila, a Japanese convoy carrying troops and supplies was about to enter the main road from the east just as Second

Squadron of the Fifth Cavalry Regiment came roaring down from the north. Troopers aboard the leading American vehicles brazenly waved the enemy trucks to a halt and the astonished Japanese complied. Then as each of the Fifth Cavalry's vehicles sped by, they unleashed a burst of fire at the confused Japanese, leaving four trucks in flames behind them as they raced toward Manila.²⁸

The troopers covered 100 miles in 66 hours and were the first Americans to enter The Philippine capitol after three years of Japanese occupation. On the outskirts of Manila, a tank from the 44th Tank Battalion knocked down the front gate of the Santo Tomas internment camp signaling freedom for over 3,400 prisoners.²⁹ Armor support of infantry in the fight for Manila was just beginning.

In order to overcome the Japanese defenses, the First Cavalry units used infantry assaults on enemy positions preceded by artillery preparations and direct fire support by tanks, tank destroyers, and artillery pieces.³⁰ Other units involved in the clearing of Manila completed the defeat of the Japanese using similar tactics and techniques. The urban fighting in Manila was only a part of fighting which took place in the Philippines. Clearing the countryside also required armor support in the form of reconnaissance, security, and support of dismounted maneuver.

Close coordination of armor in support of infantry characterized the tactical operations in the

Philippines. The types of armor used included tanks (light and medium), assault guns, light amphibious tracked vehicles, self propelled artillery and assorted motorized vehicles. Armor was task organized from company to individual weapon systems, depending upon the considerations of METT-T.

Armor provided the infantry mobility, firepower, shock action, and protection in offensive actions against a defending enemy. Armor provided critical support to the infantry to defeat the Japanese through reconnaissance, security, mobile massed maneuver, and support of dismounted maneuver.

The operations in the Philippines were not contingency operations as defined in appendix A. However, these operations did display characteristics one would expect to see in a contingency operation conducted in the Philippines today. These characteristics would include a rapid introduction of forces and the establishment and expansion of a base of operations, other actions would follow as the theater developed.

A more recent operation provides an example of a true contingency operation. Many of the attributes cited thus far can be found in the battle for the Falklands.

THE FALKLANDS

The battle for the Falklands Islands is often cited for extensive use of high technology weapons. However, it was the infantryman slogging across soggy, rocky terrain and fighting hand to hand that won the war. In support of the infantry was light armor, The Blues and Royals.

The decision to include armor in the contingency operation by the British planning staff was METT-T driven. The decision was based on the excellent cross country mobility of the Scorpion and Scimitar armored reconnaissance vehicles in what was considered difficult if not impossible terrain. Space on the transport ship was critical so as a result only two troops (U.S. platoon equivalents) totaling eight vehicles were taken.³¹

The Scorpion and Scimitar are tracked, light armored reconnaissance vehicles, (CVRs). They are similarly designed except for their main armament³². The Scorpion has a 76-mm gun firing HESH (High Explosive Squash Head), HE (High Explosive), Smoke, Illuminating and Canister ammunition.³³ The Scimitar has a 30-mm gun firing fixed QF ammunition with percussion primers.³⁴ Two vehicles can be lifted in a C-130 aircraft and a CH-47 medium lift helicopter can lift one vehicle. Both vehicles can be air dropped.³⁵

The Blues and Royals went ashore at San Carlos without incident and were quickly incorporated into the defense, protecting the buildup phase of the operation. During this phase, the CVRs were used for hauling supplies and for air defense using their coaxially mounted 7.62-mm machine guns. One Scimitar claimed credit for downing an A4 Skyhawk at a 1,000m with its 30-mm gun.³⁴ After the buildup phase, the CVRs moved south to assist with the landings at Fitzroy and Bluff Cove. The CVRs accompanied 3 Para and 45 Commando (both are light infantry regiments) on their 50 mile march, ending up the only vehicles capable of making the cross country journey.³⁷ "The sensation of driving across the water logged surface was described as similar to driving on a water bed."³⁸ At Bluff Cove the CVRs were again pressed into air defense service. Civilians observing the air attacks on the Sir Galahad and Sir Tristan at Bluffs Cove claim to have seen one of the CVRs hit its target.³⁹ In spite of losses, the British forces continued their move toward Port Stanley.

Battles fought across the high ground above Port Stanley were planned to take place at night and involved close direct and indirect fire support.

The first phase-attack was opened by 3 Para with their assault on Mount Longdon. Initial surprise was achieved in the darkness, but the enemy were soon alert and resisted

fiercely with heavy accurate fire. 4 Troop provided valuable direct fire support with their 76-mm, firing HESH. The battle for the eastern sector of Mount Longdon was to last 6 hours and, for the western half, 4 hours. The enemy positions were captured by a process of calling for very close fire support, at times within 50 meters of the leading British troops.⁴⁰

Two techniques used by the British employing the CVRs proved very successful. The first involved a diversionary attack on the night of 12 June. In the attack, the Scots Guards employed 4 Troop in a reconnaissance role and then a direct fire role in support of the diversionary assault. The impact of the use of the CVRs was instrumental in deceiving the enemy. The Argentine commander later admitted that "...he had been entirely deceived by the diversionary attack into thinking it was the main attack on his position"⁴¹ The other technique employed by the CVRs is known as "zapping":

...the CVR crew would engage the Argentine position with a brief burst of machine gun fire provoking a response, which was promptly silenced by the main gun. The 30-mm Rarden cannon, with its high velocity and great accuracy, was much favored for this technique. Few Argentines felt able to reply after being zapped.⁴²

Armor, played key roles during the Falklands War performing reconnaissance, security, and support of dismounted maneuver missions. The presence of the CVRs during the initial build up phase provided a degree of security otherwise not available had an attack been

launched by the Argentines, particularly if they had used their 90-mm gun equipped Panhards (wheeled armored vehicles). Once again, armor vehicles surprised their supporters and silenced the critics with their great mobility in terrain considered unacceptable. When employed in support of infantry, the CVRs provided critical direct fire, especially with their passive sights during the hours of darkness. Additional roles of air defense and aiding the logistics effort only enhanced the primary fire support role provided by the CVRs.

Forces in the Falklands and the Philippines operated in an underdeveloped theater at great distances from their base of operations. However, unlike the Philippines, the Falklands operation embodied the character of a true contingency operation. The five phases of a contingency operation outlined in appendix A are evident in this operation. An even more recent contingency operation, Just Cause, provides an example of operations in a more developed theater with different planning considerations.

OPERATION JUST CAUSE

The armor employed in Operation Just Cause, in Panama in December 1989, participated in a wide and varied range of operations and performed the roles of reconnaissance, security, and support of dismounted

maneuver. These roles were performed primarily in an urban environment. The types of armored forces employed in Panama consisted of M113s (tracked armored personnel carriers), M551 Sheridans (tracked armored vehicles), and LAV-25s (wheeled armored vehicles). Vehicles were from the US Army with the exception of the Marine LAVs.

Task Force 4-6 Infantry, 5th Infantry Division (Mechanized), was the armor heavy task force participating in the operation. It consisted of two mechanized companies, one infantry company from the 1st Battalion 508 Airborne Infantry, and Team Armor (consisting of one platoon of Sheridans and one platoon of LAV-25s). This task organization changed frequently with units added and detached throughout the operation.⁴³ Most of the armor was forward deployed in Panama prior to the operation, although dispersed among four separate installations. One platoon of Sheridans was secretly maintained at Howard AFB prior to the operation, while the others were combat air dropped near Tocumen-Torrijos Airport.⁴⁴

The main effort for TF 4-6 was to secure the compound containing the Panamanian Defense Force (PDF) headquarters, the Commandancia. This was no small feat due in part to its location in an urban area with apartment buildings bordering much of the compound. H-

Hour was set for 0100 on 20 December. The intent was for the Sheridans and LAVs to provide overwatch while the infantry cleared the compound (to include the Commandancia). The main concern was the possible use of Panamanian V300s (wheeled armored vehicles) with their 90-mm guns. This threat never developed as expected and the armor was pressed into other supporting roles.⁴⁵

Shortly after 0200 hrs, one of TF 4-6's mechanized companies began receiving heavy casualties in the vicinity of the compound. LTC Reed (Commander, TF 4-6) sent one Sheridan and one LAV OPCON to provide support. When asked why he sent one of each type vehicle instead of a section of like vehicles, he replied that at the time he knew the move was questionable from any doctrinal perspective. However, the pair provided the accuracy and rate of fire the situation required from the LAV and the ability to blow holes in the concrete reinforced walls with the Sheridan. In addition, the presence of the armor provided the infantry company a morale boost and intimidated the enemy.⁴⁶

Sheridans and LAVs proved to be valuable in providing direct fire in support of the infantry's assault on the Commandancia. Over ten rounds of 152mm and over one-hundred 25-mm HE-T went into the building

prior to the final clearing of the building.⁴⁷ A separate attack by the 4th Battalion, 325 Air Assault Infantry Regiment on Ft Cimarron (PDF training and barracks compound) was supported by Sheridans firing approximately thirty rounds of 152-mm HEAT. Infantry and armor worked closely in mutually supporting roles.⁴⁸

Throughout the operation, Sheridans were used for convoy duty, providing security and reconnaissance. Ambushes with sniper, machine gun, and small arms fire were encountered through the 25th of December.⁴⁹ Other roles for armor included crowd control and show of force demonstrations intended to inhibit rioting and looting. These operations were successfully conducted both day and night (vehicle search lights were very effective).⁵⁰ Another mission of note involved the S3 of TF 4-6 IN with two LAVs, one Sheridan, and two M113s providing security for units pursuing Gen Noriega and other senior PDF officials.⁵¹

The commander of TF 4-6 IN commented that "everyone wanted armor and I had a hell of a time supporting the units that got parceled out among the light infantry. We were stretched pretty thin."⁵² In spite of the fact that most of the units had not trained together prior to cross attachment (particularly the Marine LAVs), armor was used

extensively with success in Operation Just Cause. Problems did exist however, with support being foremost among them. Coordination and techniques were worked out, often just prior to the mission at hand.³³ One must question if the degree of success would have been the same had the PDF been better organized or used its armor during the operation?

Armored forces performed the four roles of armor in a wide range of missions in Operation Just Cause. Commanders used armor for unique and non-standard missions, missions not supported by current doctrine. The mission-doctrine incompatibility highlights a shortfall between current doctrine and doctrinal requirements for contingency operations.

The three historical examples provide an opportunity to evaluate the theory of the four roles of armor. Reconnaissance was performed by units in the Philippines and by individual vehicles in all three examples. Security operations were prevalent in all three examples, with unique requirements displayed in Operation just cause. Massed mobile maneuver was best demonstrated by the "Flying Columns" in the First Cavalry Division on Luzon. Support of dismounted maneuver was the most often required role for armor and most extensively performed in the three examples.

Armor performed these roles in different

environments including jungle, mountains, tundra, and urban areas. The roles were executed with only one or two CVRs in the Falklands and in large formations as in the Philippines. Armor was task organized "on the fly" with dissimilar equipment in Operation Just Cause, highlighting the requirement for operations beyond the scope of our current tactical doctrine and the fluid nature of contingency operations. Armor must be able to perform its roles in these environments and the correct doctrine is critical to that ability.

IV ANALYSIS

A review of current tactics and techniques reveals serious gaps in the major implementing doctrinal manuals when addressing the roles of armor for contingency operations. The 71 series of field manual (FMs) deals with heavy forces. For the purposes of analysis, I will focus on FM 71-1, Tank and Mechanized Infantry Company Team; FM 71-2, The Tank and Mechanized Infantry Battalion Task Force; and FM 71-3, Armored and Mechanized Infantry Brigade. The 7 series of FMs deals with the different infantry organizations. Of these I will focus on FM 7-10 Infantry Rifle Company; FM 7-20 Infantry Battalion; FM 7-30, Infantry Brigade; FM 7-70 Light Infantry Platoon/Squad; FM 7-71 Light Infantry Company; and FM 7-72 Light Infantry Battalion. These are implementing doctrinal manuals which should provide

direction for employment of armor.⁵⁴ Other pertinent manuals are the Cavalry FM and other TRADOC publications.

RECONNAISSANCE

Reconnaissance is a battlefield function performed by all combat units. In a contingency operation however, armor draws on its capabilities of mobility and protection not afforded light infantry. The reconnaissance role for armor is outlined in detail in the FM 71 series. FM 71-2 briefly addresses heavy and light reconnaissance considerations in its appendix on integration of heavy and light forces.⁵⁵ These considerations are missing from the company and brigade level FMs.

The infantry manuals, the FM-7 series, do not do much better. These FMs all address reconnaissance as it relates to infantry specific operations, but fail to incorporate armor into missions as part of a heavy and light force mix. Uses of armor for reconnaissance missions such as those performed in Operation Just Cause are not addressed in these FMs, but should be.

Reconnaissance is covered in great detail in FM 17-95, Cavalry Operations. This FM provides extensive detail on the employment of cavalry forces in the role of reconnaissance. It does not, however, cover light and heavy force mix considerations. Closely related to

reconnaissance operations is the role of security, again covered in detail in FM 17-95.

SECURITY

Security is usually associated with cavalry units performing their traditional missions of screen, guard, cover, and rear area protection. FM 17-95 devotes an entire chapter to these missions.⁵⁴ Both infantry and armor units must perform security operations as an inherent task in protecting the force. The coverage of security operations varies with each of the two FM series.

The FM 71 series devotes significant portions of each manual to security operations. The brigade manual, FM 71-3, provides the most comprehensive coverage of security operations.⁵⁷ Armored forces drawing on the attributes of mobility, agility, and lethality are well suited for security operations. The problem is the FM 71 series does not address security missions for a light and heavy force mix in contingency operations.

The FM 7 series does not provide for infantry performing security operations. Instead, these FMs focus primarily on local security as illustrated in the company manual, FM 7-71.⁵⁸ The exception to this is FM 7-72, Light Infantry Battalion, which discusses in a brief paragraph the use of a security force in the

defense.⁵⁹ The cause for discrepancy may lie in the differences between heavy and light forces.

The disconnect between light and heavy force FMs on the security mission may be due to the difference in capabilities of each force. Light forces, with their lack of mobility and protection, do not focus on security operations. On the other hand, armor forces, possessing greater mobility and protection, focus on this role and incorporate it into their offensive and defensive missions. The problem exists that both series lack coverage of the security mission in a contingency operation.

Security operations performed by the Blues and Royals are classic examples of armor performing a security role with infantry in a contingency operation. One recurring problem is the FMs do not address the "how to" in order to accomplish this. This problem is not confined just to security operations, but carries over to the other roles as well.

MOBILE MASSED MANEUVER

Mobile massed maneuver is the proprietary domain of armored forces. The FM 71 series cover this role in great detail providing specific TTPs for heavy units. FM 71-1 provides the greatest detail. The FM 71 series is focused on the mid - to high - intensity level of the operational continuum. It does not, however, serve

small or light armor units supporting infantry in a contingency operation at the low - intensity region of the operational continuum.

Mobile massed maneuver is most often associated with large formations. However, in a contingency environment, as demonstrated in Operation Just Cause, mass can be achieved with a small number of vehicles. Uses of armor in Operation Just Cause highlight the expanded definition of mobile massed maneuver beyond that expressed in the FM 71 series.⁴⁰

The FM 71 series lack the TTPs needed to employ armor as in Just Cause. Also lacking are TTPs for an armor company or battalion to operate in a fashion similar to elements of the 44th Tank Battalion as a "flying column" as part of the First Cavalry Division in World War II. Missing in the FM 7 series are similar references. As little as mobile massed maneuver is addressed in the FM 7 series, the last of the four roles of armor, support of dismounted maneuver, appropriately receives the most.

SUPPORT OF DISMOUNTED MANEUVER

The degree of attention given to the role of armor in support of dismounted infantry varies a great deal between FMs. Support of dismounted maneuver by armor forces is not covered in the FM 71 series in the manner described in the three historical examples. The heavy

force doctrinal manuals do not address support of infantry by individual weapon systems or even sections in a fashion characterized by actions in Operation Just Cause and the Falklands. This exclusion of missions and TTPs to conduct this role is the single biggest failing of the FM 71 series. The FM 7 series does a slightly better job in addressing this role in a mixed force operation, but lack the TTPs to execute it.

The infantry FMs focus on this role of support more than any of the four roles. Characteristic of this focus is FM 7-20, The Infantry Battalion. The major contribution of this manual is the consideration given the support provided by armor exhibited in the following passage:

A small number of tanks with a large number of infantry can be decisive. The tanks can be used as heavily armored accompanying guns, or assault guns working forward and integrated with the fire and maneuver of infantry.⁶¹

The role of armor is correct as theory and history have shown us but, TTPs are not provided to make the transition from "what" to "how".

The problem of inconsistency in the implementing doctrinal manuals concerning support of dismounted maneuver is highlighted by the infantry brigade manual, FM 7-30. This manual does not address the roles of armor or force mix considerations. The manual's solution is to refer questions concerning force mix

considerations dealing with armor to FM 71-3.⁴² This may be acceptable in a mid - to high - intensity environment, but not in a contingency operation. This approach does little to solve the light and heavy force mix problems or ensure armor is properly employed in support of dismounted maneuver.

Tied to the problem of adequately addressing the four roles of armor in tactical doctrine, is the issue of light and heavy force mix considerations. These considerations are essential for both types of forces to properly employ armor in a contingency operation.

FORCE MIX CONSIDERATIONS

Three light infantry manuals FM 7-70 Light Infantry Platoon/Squad, FM 7-71 Light Infantry Company, and FM 7-72 Light Infantry Battalion all include references to force mix considerations. Command and control and combat service support issues are the focus of these considerations. The FM 71 series also include appendices addressing force mix considerations. However, they lack detail and depth for tactics and techniques. Contributions of armor through force mixing could be covered through the roles of armor, but are not.

In the implementing doctrinal manuals addressed, varying degrees of detail are provided for light and heavy force mix considerations. These considerations

center on logistic factors and include planning considerations for combat operations. None provide the detail or the TTPs necessary to properly conduct mixed force operations.

There is help on the way. According to the Combined Arms Tactics Department at Fort Benning, selected implementing doctrinal manuals such as FM 7-72 and FM 7-20 will be superseded by a new FM 7-20 due for release in late November, 1990.⁴³ This new FM 7-20 will cover force mix considerations with the detail lacking in infantry manuals to date.⁴⁴ Another new FM, FM 71-123, currently in coordinating draft, will provide much needed attention to the force mix problem.

FM 71-123 (coordinating draft), Tactics, Techniques, and Procedures for Combined Arms Heavy Forces includes a twenty eight page appendix which deals with the integration of heavy and light forces. Sections address both light and heavy forces from the brigade to below team level.⁴⁵ The most promising aspect of this manual is the inclusion of missions supporting the four roles of armor as well as the tactics and techniques required to execute them. Details on how to fight as a mixed force are provided here that are not found in any single or combination of other implementing doctrinal manuals. What is not included is reference to, and tie in with, contingency

operations.

CONTINGENCY OPERATIONS

The doctrine in FM 71-100, Division Operations and FM 100-15, Corps Operations provides the greatest detail of all FMs in addressing contingency operations. At the division level, a detailed description of contingency operations includes employment and specific force augmentation considerations.⁴⁶ Critical to planning operations with mixed forces, this manual points out that when "...planning a heavy-light operation, it is important for the staff planner to distinguish between required augmentation, support, and task organization."⁴⁷

FM 100-15 addresses force mixing in both offense and defense chapters. Key to the decision to mix forces is "...the estimate process and METT-T".⁴⁸ FM 100-15 provides clear considerations for force mixing:

The assignment of proper command and support relationships is critical to the successful command and control. This applies to equally to combat, combat support, and combat service support units. It must be recognized that augmenting a light force with combat support and combat service support assets from a heavy formation may very well create a heavy-light force mix without ever mixing maneuver forces.⁴⁹

One manual currently available dealing exclusively with contingency operations is Strike Operations, HandBook For Commanders. This manual was published in

March, 1990 by Center For Army Tactics - Command and General Staff College to provide a comprehensive reference for contingency operations. Chapter five uses the battlefield operating systems to highlight basic force mix considerations. Missions for armor include all four roles of armor, but the section lacks the detail provided in documents previously addressed.⁷⁰ Conspicuously missing is any reference to armor supporting infantry in a manner demonstrated in Panama, one or two vehicles in support of an infantry unit.

The manuals addressed thus far are the ones the Army will use in a contingency operation today. Preparation for such an operation and the doctrine being used can be seen at the Combat Training Centers (CTCs).

HEAVY AND LIGHT FORCE MIX TRAINING ROTATIONS

If we truly fight as we train, then observations from the major training centers provide us interesting applications of our current tactical doctrine and the four roles of armor. Heavy and light force mix rotations at CTCs reveal deficiencies and the need for unit training in potential contingency operations.

Analyses of after action reports (AARs) of light-heavy rotations at the Joint Readiness Training Center (JRTC) reveal discrepancies in tactics and techniques used. An AAR on a rotation at the JRTC this year is

representative of force mixing and type training. Units and equipment involved included an infantry battalion from a light unit, a Sheridan company, and a scout platoon equipped with LAVs. Both types of vehicles were from a light division.⁷¹

The method of employment of the armor was narrowly focused:

The tanks and LAVS represented a significantly large percentage [sic] of the training unit's combat power. When combined with the unit's anti-tank company they comprised well over one third of the unit's combat power. Team Delta ("Team React") was primarily used and assigned missions counter to its reconnaissance and offensive capabilities with tanks.⁷²

LAVs and tanks were employed by company, battalion, and brigade level commanders primarily in reactive roles. Use of armor by light forces is normally as the counterattack force.⁷³ This narrow focus of employment suggests a lack of appreciation for the capabilities and roles of armor and/or inadequate tactics and techniques to facilitate their proper use.

Results of another light and heavy force mix rotation at the JRTC involved an air assault brigade and a tank company team. This rotation highlighted a different problem in force mixing. "Light forces have a tendency to piecemeal their heavy support. This is acceptable in a low - threat environment, but the dispersion of the tank team during the attack of the

motorized rifle battalion was not."⁷⁴ Problems such as this highlight one more aspect concerning inadequate and inconsistent doctrine. Force mixing and assigned missions must be based on METT-T. Commanders must have an understanding of the four roles of armor to properly employ armor forces. Employment problems such as these are not confined to light units.

In April, 1990 the first light and heavy force mix participated in a CTC rotation as part of a contingency operation scenario. The scenario included a special operation forces (SOF) seizure of an airfield, air assault forces to support and expand the airhead, and a heavy follow-on-force consisting of a balanced mechanized task force. Highlights of the observations are consistent with other similar force mix rotations. Combat support and service support issues continue to plague units.

Examples of recurring issues include problems when light engineers without additional assets attempt to clear paths for heavy forces, command and control interface problems including radio and fire control net incompatibility, and basic movement rates and fire support considerations. Many commanders understand the principles for employing light and heavy forces are the same. What commanders fail to comprehend are the techniques, capabilities, and limitations of the

augmenting force; "...light units normally do not understand what tanks, Bradleys and mechanized engineers can do for them, nor does heavy understand the light."⁷⁹ Lessons Learned publications from the NTC reinforce these points. These problems stem in part from training deficiencies, but there is a deeper problem.

This problem is a doctrinal one, and is embodied in the lack of Army wide tactics and techniques to assist commanders and their units in performing their missions. This, coupled with a lack of appreciation for the roles of armor, leads to the recurring problems highlighted in after action reports and lessons learned from the Combined Training Centers (CTCs). The doctrinal problem is the central issue in contingency operations. In order of importance and closely connected to doctrine is the issue of organization.

Organization and equipment are critical elements in armor's ability to perform its four roles in contingency operations. The lack of strategic mobility has long been a problem for the armored force. Appendix B briefly outlines organization and equipment issues confronting the armored force in contingency operations.

Analysis suggests specific deficiencies exist concerning armor's ability to perform its four roles in

contingency operations. Problems with current tactical doctrine, lacking TTPs and consistency, are highlighted by recurring problems in our training. These problems point to distinctive conclusions.

V. CONCLUSION

Our manuals provide the "what to do" but not the "how to" for mixed forces in a contingency operation. Current doctrine and the tactics and techniques are acceptable for forward deployed armor to perform its four battlefield roles against the Soviets or a Soviet trained and equipped opponent. Reports from the training centers endorse the current doctrine as being correct for both infantry and armor forces. What is lacking are the tactics and techniques required to properly implement the AirLand Battle doctrine with light and heavy force mix operations in contingency operations.

Tactics and techniques now in use are not sufficient to meet the needs of armor forces (ability to perform the roles of armor) with light force in contingency operations. Current implementing doctrinal manuals suggest that heavy and light forces seldom task organize below battalion level. This is not the way British armor supported infantry in the Falklands nor how U.S. armor was employed in Operation Just Cause.⁷⁶

There is a lack of consistency among US Army

doctrinal manuals. Present manuals do not provide the commander with METT-T analysis which can function as a guide for heavy and light force mixing. These implementing manuals are key if heavy and light forces are to overcome the recurring problems experienced at the JRTC and NTC. Emerging field manuals such as FM 71-123 (coordinating draft) come a long way in closing the existing gap between implementing doctrinal manuals and required tactics and techniques. Standardized procedures for supporting cross attached forces are essential if heavy and light force mixes are going to work.⁷⁷

Army armor units employed in Operation Just Cause were unique, not only in the sense that there is only one Sheridan Battalion in the Army, but also in the way they habitually train with the light forces of XVIII Airborne Corps. Commanders must be provided the probable doctrine and METT-T conditions under which light and heavy force mixing will yield the desired battlefield results.

Based upon lift constraints and other limitations, it is questionable whether or not the armor force, as currently configured, can fulfill its four roles in the contingency force. Current efforts underway by the Armor Center to field an AGS and the proposed cavalry organizations at corps, appear to be at least a partial

answer to the strategic lift problems.

The conclusions drawn from the analysis in this paper highlight specific deficiencies in our tactical doctrine and the methods for force mixing.

Implications can be designed from these conclusions to address the deficiencies cited from the conclusions.

VI. IMPLICATIONS

Existing deficiencies in the form of inconsistent tactical doctrine and lack of TTPs pose valid concerns for armor in contingency operations. The Army must provide tactical doctrine which will give commanders the kind of flexibility in task organization demonstrated by LTC Reed in Operation Just Cause. This change in doctrine will alter current conceptions on task organization. Increased flexibility in the tactical doctrine will help yield the kind of results demonstrated by the Blues and Royals in the Falklands. The changes must also include standardization.

Standardization of the implementing manuals for light and heavy units is critical. A heavy unit cannot operate under one set of tactics and techniques and then be expected to operate under another when working with a light force. The lack of appreciation for mutual support among light and heavy force mixes can be remedied to avoid mission shortfalls and problems highlighted at the training centers. It is at the

training centers where the most immediate change can be made.

Training rotations at the CTCs should reflect conditions expected in a contingency operation. Force mixing should result from METT-T analysis of a probable contingency operation. This will yield the right force for the operation, ensuring armor is employed fully using one or more of its battlefield roles. The right system is the final element needed to meet the shifting focus to contingency operations.

Armor systems are currently available to meet the basic requirements of contingency operations and fulfill the roles of armor in those operations. The Army must decide on a system and field it. To do otherwise denies the contingency force commander needed capability.

If the United States Army is going to be able to meet its mandate as defined by General Vuono, "to deter aggression and defeat attacks against our nation's interests wherever they occur", a trained and properly equipped force is imperative.⁷⁸ The armored force will remain an essential player on the combined arms team. "Armor continues to provide the commander with the mobility and firepower needed to win quickly and decisively, armored forces remain vital to dominating the modern battlefield."⁷⁹

APPENDIX A

CONTINGENCY OPERATIONS

Contingency operations are politically sensitive military actions requiring rapid deployment of military forces in support of national policy, usually in conditions short of war. These operations are normally undertaken when fundamental national interests are at stake, and when direct and indirect diplomacy and other forms of national power have been exhausted. Often diplomacy and other forms of national power need to be supplemented by a show of force or direct military action.⁸⁰ Contingency operations present distinctive force, planning, and operational considerations.

The most likely employment of US military forces is at the lower end of the intensity scale. The setting in which contingency operations will most likely be conducted is areas with little or no infrastructure and no forward deployed forces or supplies.⁸¹

Contingency operations are not defined by any set criteria. However they usually include several of the following characteristics: US interests are at stake, generated by a crisis, time sensitive, political pressure for a clear - quick victory, uncertainty of the situation, tailored and packaged forces, and involve joint and combined operations. The political situation may impose a degree of centralized control, and forces used will be constrained by the availability of lift.⁸² These characteristics have direct bearing on the phases of an operation.

Contingency operations are phased operations by design. Phases begin with planning and preparation and end with redeployment of the contingency force. The following five phases provide the general structure for a contingency operation and can be adjusted to fit the needs of a particular contingency. The five phases are: Pre deployment/crisis action, deployment/initial combat actions, force buildup/combat operations, decisive combat operations, and redeployment.⁸³

The five phases are common to the eight major types of contingency operations. The eight types are: show of force and demonstration, noncombatant evacuation operations, strikes and raids, peacemaking, unconventional warfare, disaster relief, security assistance surges, and support to US civil authorities.⁸⁴ Armor forces have the potential to participate in each type of contingency operation based on the commander's requirements. In operation Just Cause armor demonstrated its versatility while performing three of the four roles in combat and

peacekeeping operations. Other forces are available to support contingency operations.

In addition to contingency operations forces, there are two additional types of forces which require definition for the purpose of reference throughout this paper. They are forward deployed and reinforcing forces.

Army forward deployed forces with armor can be found in Europe and Korea. The initial mission of these forces is to deter hostilities. If deterrence fails, then armor, as part of the combined arms team, must help prevent surprise and deny an attacking force its objective in order for reinforcing forces to arrive.²⁵

Reinforcing forces are predominantly based in CONUS. These forces are faced with the same strategic lift constraints as contingency forces (the element of time being the key difference). Missions for this force may be to either reinforce the forward deployed force or the contingency force.²⁶ In either case armor will be required as an integral part of the combined arms team. Tactical doctrine makes that integration possible.

APPENDIX B.

ORGANIZATION

The focus of this monograph is on the doctrinal issue of armor in contingency operations; however, closely related to the doctrinal issue is the organizational one. There is a widely acknowledged lack of strategic mobility in the armor force. Strategic lift constraints complicate the planners' ability to develop courses of action and therefore leave valid concerns about the ability of armor forces to contribute early in a contingency.

The most serious deficiency is the near total absence of armor in the Army's two contingency corps. The Army's single light armor battalion in the XVIII Airborne Corps is too small to provide the full requirement for armor missions in any large contingency operation against a well armed threat. The other contingency corps, I Corps has no armor forces at all. The Armor Center is already working with both corps to develop and field cavalry regiments tailored to the specific operational requirements of each command.⁸⁷

One innovative solution to the current problem is posed by two former squadron commanders from the 3rd Armored Cavalry Regiment:

In our search for deployable armored force, we have flirted with the LAV25 armored car. We toyed with the notion of resurrecting the M551 Sheridan in a variety of configurations--as is, with a new turret or with no turret at all but with a hypervelocity automatic cannon instead. Ironically, even as we have experimented with exotic vehicles and innovative organizations, a deployable armored force has come into existence unnoticed. That force is the armored cavalry regiment.⁸⁸

A deployed armored cavalry regiment gives the contingency force commander a viable armor force, capable of performing all the roles of armor. But, the lack of strategic responsiveness of a unit as heavy as an ACR (one M1 per C5A) and the airlift required to deploy it mitigate its viability as a contingency force.

All hope is not lost for a deployable armor force. The Armor Center is developing organizational and equipment design changes to correct the imbalance between heavy and light armor units. The center of the organizational effort is armor for the contingency corps. Two units proposed are the Light Armored Cavalry Regiment (equipped with an armored gun system [AGS) and LAV) and the Medium Armored Cavalry Regiment (equipped with an AGS). The main initiative in the near term is the AGS. The present AGS program entails the purchase of 70 airdroppable systems to replace the aging M551 Sheridans of the 3rd Battalion, 73rd Armor. The program should expand to procure about 400 systems to equip the proposed cavalry regiments of both XVIII Airborne Corps and I Corps.

The Armor Center has many initiatives ongoing to correct the organizational and equipment shortfalls in the current armor force. If contingency operations are to become the major focus of our Army, the timeline for procurement and fielding these systems takes on greater importance.

ENDNOTES

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15. Ibid.
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